

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

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Surface Water

(Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

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Ground Water

(Issued in accordance with the provisions of Chapter 293, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE August 11, 1992	APPLICATION NUMBER G2-28586	PERMIT NUMBER	CERTIFICATE NUMBER
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NAME Mike Purcell			
ADDRESS (STREET) 21237 5th Avenue S	(CITY) Seattle	(STATE) Washington	(ZIP CODE) 98198

PUBLIC WATERS TO BE APPROPRIATED

SOURCE Well

TRIBUTARY OF (IF SURFACE WATERS)

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 29	MAXIMUM ACRE-FEET PER YEAR 4.5
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QUANTITY, TYPE OF USE, PERIOD OF USE 4.5 Acre-feet per year	Multiple domestic supply	Year-round, as needed
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LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL 600 feet South and 950 feet West of the Northeast corner of Section 20.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) NE¼ NE¼	SECTION 20	TOWNSHIP N. 19	RANGE, (E. OR W.) W.M. 1W	W.R.I.A. 13	COUNTY Thurston
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RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Lots 1, 2 and 3 of Thurston County Short Subdivision #2468 as recorded in Volume 26, p 283, Auditor's file #9211230061.

Lots 2 and 3 of Thurston County Short Subdivision #2501 as recorded in Volume 26, p 332, Auditor's file #9302020040.

Parcel A and Parcel B of Thurston County Boundary Line Adjustment #1730.

Lot 7 of Thurston County Long Lot #0378.

The North 80 feet of the South 480 feet of that part of Lot 8 in Section 20, T. 19 N., R. 1 W.W.M. lying West of a line running North from a point on the South line of said Lot 8, 167.55 feet East of the NE corner of Lot 1 of Madden Glen Alder Subdivision as recorded in Volume 11 of plats, page 62.

DESCRIPTION OF PROPOSED WORKS

6" x 100' drilled well discharging 29 gallons per minute (gpm) to a water system designed for nine homes.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:

Started

COMPLETE PROJECT BY THIS DATE:

Complete

WATER PUT TO FULL USE BY THIS DATE:

January 1, 1999

REPORT

BACKGROUND:

Under the provisions of Chapters 90.03 and 90.44 Revised Code of Washington (RCW), Mike Purcell, of Seattle, Washington, filed an application to appropriate public ground water from a well. The amount requested is 29 gallons per minute for the purpose of multiple domestic supply. The application was assigned No. G2-28586, and given a priority date of August 11, 1992.

Legal public notice was published as required. No protests or objections were received as a result of the public notice.

I recommend issuance of a permit based on the following report of examination.

INVESTIGATION:

In consideration of this application, I conducted a site investigation on October 25, 1995. Other investigations included a review of existing recorded water rights, registered claims, water-well reports, information submitted with the application, Chapter 173-513 WAC, Geology and Ground-Water Resources of Thurston County - Water Supply Bulletin No. 10, telephone conversations with Mary Campbell for additional information, and consultations with Ecology Water Resource hydrogeologists.

Location and Site Description

The project site is located approximately five miles north of Olympia, off Johnson Point Road and 65th Avenue on Henderson Inlet. Surrounding land use is comprised of single family residences, and small farms. Site elevation is approximately 90 feet above mean sea level. The subject well is situated adjacent to a large barn approximately 600 feet inland from Henderson Inlet.

System Description

Well Depth: 100 feet
Casing Diameter: 6 inch
Yield: 29 gpm

A water-well log is not available. System design was engineered by Howard Godat & Associates to serve nine homes. The system is capable of serving a maximum of nine connections and, at present, is serving four homes. The well is enclosed in a small pump house with associated pressure tanks.

In June 1992, Reid Kincy of Kincy Water Systems conducted a four hour pumping test. The static water level prior to start was measured at 84 feet. The well was pumped at a rate of 25 gpm. After four hours of pumping, the water level drew down four feet, to 88 feet below land surface. Recovery to pre-test static water level occurred within 27 seconds.

Aquifer Characteristics

Based on an evaluation of available water-well reports in this area, this well probably is completed in an aquifer consisting of sand and gravel at about 10 feet below mean sea level. Because of the close proximity to sea water, the applicant will be required to monitor for chloride levels consistent with local health department requirements.

Report Continued

Existing Water Rights

The following recorded water rights, registered claims, and water well reports are on file with Ecology within a one-half-mile radius from the subject well:

- One ground-water right has been issued authorizing an instantaneous withdrawal of 100 gallons per minute, 22.5 acre-feet per year. Water use is for multiple-domestic supply within Alder Glen Subdivision, situated along the water front just south of the subject project site.
- Three surface-water rights have been issued authorizing a combined instantaneous diversion of 1.14 cubic feet per second, 16.5 acre-feet per year. Water is used from an unnamed stream draining toward Henderson Inlet for the purposes of domestic supply, irrigation, fish propagation, recreation, beautification, and power generation.
- Sixty-six ground-water claims and three surface-water claims are registered that may be within one half mile. The majority of claimed use is for domestic supply, along with stock water, and irrigation.
- Several well reports are on file with Ecology for wells within one-half-mile of the subject well. Wells range in depth from 49 to 178 feet.

Chapter 173-513 WAC Instream Resources Protection Program -- Deschutes River Basin, Water Resource Inventory Area (WRIA) 13

In June 1980, Chapter 173-513 WAC Instream Resources Protection Program -- Deschutes River Basin, WRIA 13, established instream flows and closures for parts of the Deschutes River, its tributaries, and other tributaries to Puget Sound. The closures vary from seasonal to year round, while some tributaries have low-flow limitations. Ground-water discharge maintains the base (low) flows of streams in the watershed and additional pumping could cause a reduction in flows.

Applications for ground water where the source is not connected to closed surface waters may be approved if existing rights are not impaired.

Ecology Approval Requirements

Prior to approving new allocations of water, Ecology must determine that:

- water is available for appropriation
- water will be put to beneficial use
- the appropriation will not impair existing rights
- the appropriation will not be detrimental to the public welfare

Because of the close proximity to sea water, the applicant shall be required to monitor the subject well, and any seaward well(s) for chloride concentration.

Water Requirements

Water requirements for multiple domestic supply should not exceed an average of 450 gallons per day per home. For nine homes this amounts to 4.5 acre-feet per year.

FINDINGS AND CONCLUSION:

Based upon the above investigation, the Department of Ecology finds the following:

1. The proposed use of water is a beneficial use of water.
2. The source of water requested is not in hydraulic continuity with the Deschutes River or its tributaries.
3. Water is available for appropriation.
4. The proposed appropriation will not be detrimental to public welfare.

5. The proposed appropriation will not impair existing water rights.

RECOMMENDATIONS:

I recommend approval of this application and issuance of a permit to allow withdrawal of 29 gallons per minute, 4.5 acre-feet per year for multiple-domestic supply. The period of use shall be year round.

The permit shall be subject to all applicable state regulations and the following provisions:

The water appropriated under this application will be used for public water supply. The State Board of Health rules require public water supply owners to obtain written approval from the Office of Water Supply, Department of Health, Mail Stop 7822, Building 3, Olympia, Washington 98504-7822, prior to any new construction or alterations of a public water supply system.

Installation and maintenance of an access port as described in WAC 173-160-355 is required. An air line and gauge may be installed in addition to the access port.

An approved metering device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040 (installation, operation, and maintenance requirements are attached). Meter readings shall be recorded at least monthly.

Chloride concentration analysis shall be performed prior to system use, then quarterly when the system is in use, by a laboratory accredited by the Department of Ecology. The resulting data shall be submitted to the Department of Ecology, Southwest Regional Office annually, in the month of February.

If the chloride concentration exceeds 100 mg/L, the withdrawal rate shall be reduced or the pump setting raised to reduce the chloride level to below 100 mg/L.

Issuance of this water right may be subject to implementation of the minimum requirements established in the Conservation Planning Requirements, Guidelines and Requirements for Public Water Systems Regarding Water Use Reporting, Demand Forecasting Methodology, and Conservation Programs, July 1994, and as revised.

Under RCW 90.03.005 and 90.54.020(6), conservation and improved water use efficiency must be emphasized in the management of the State's water resources, and must be considered as a potential new source of water. Accordingly, as part of the terms of this water right, the applicant may be required to prepare and implement a water conservation plan approved by Department of Health. The standards for such a plan may be obtained from either the Department of Health or the Department of Ecology.

"The applicant is advised that notice of Proof of Appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent distribution system has been constructed and that quantity of water allocated by the permit has been put to full beneficial use."

REPORTED BY: Vicki Winkler Date: December 29, 1995

The statutory permit fee for this application is \$20.00.